REMARKS

Claims 1 through 19 remain in the application.

Claims 1 through 19 were rejected under 35 U.S.C. § 102(e) as being anticipated by Walacavage (U.S. Patent No. 6,442,441). Applicants respectfully traverse this rejection.

U.S. Patent No. 6,442,441 to Walacavage discloses a method of automatically generating and verifying programmable logic controller code. The method includes the steps of constructing a neutral control model file, determining whether the neutral control model file is correct and generating programmable logic controller (PLC) code if the neutral control model file is correct. The method also includes the steps of verifying whether the PLC code is correct and using the PLC code by a PLC to build a tool if the PLC code is correct. Walacavage does <u>not</u> disclose the steps of replicating a motion of a mechanical model by generating a PLC code for the motion of the mechanical model if the motion of the mechanical model was acceptable and using the accepted motion of the mechanical model to compare the behavior of the PLC code relative to the accepted motion by playing the PLC code with a PLC emulator.

In contradistinction, independent claim 1 claims the present invention as a method of emulating machine tool behavior for a programmable logic controller logical verification system for manufacturing a motor vehicle. The method includes the steps of constructing a mechanical model, viewing motion of the mechanical model in a motion viewer, and determining whether the motion of the mechanical model is acceptable. The method also includes the steps of replicating the motion of the mechanical model by generating a PLC code for the motion of the mechanical model if the motion of the mechanical model was acceptable and using the accepted motion of the mechanical model to compare the behavior of the PLC code relative to the accepted motion by playing the PLC code with a PLC emulator. Independent claim 11 is similar to claim 1 and includes other features of the present invention.

As to patentability, 35 U.S.C. § 102(e) provides that a person shall be entitled to a patent unless:

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for a patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent . . .

A rejection grounded on anticipation under 35 U.S.C. § 102 is proper only where the subject matter claimed is identically disclosed or described in a reference. In other words, anticipation requires the presence of a single prior art reference which discloses each and every element of the claimed invention arranged as in the claim. In re Arkley, 455 F.2d 586, 172 U.S.P.Q. 524 (C.C.P.A. 1972); Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983); Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 U.S.P.Q. 481 (Fed. Cir. 1984).

Walacavage '441 does not disclose or anticipate the claimed invention of claims 1 through 19. Specifically, Walacavage '441 merely discloses a method of automatically generating and verifying programmable logic controller code by generating programmable logic controller (PLC) code if a neutral control model file is correct, verifying whether the PLC code is correct, and using the PLC code by a PLC to build a tool if the PLC code is correct. Walacavage '441 lacks the steps of replicating a motion of a mechanical model by generating a PLC code for the motion of the mechanical model if the motion of the mechanical model was acceptable and using the accepted motion of the mechanical model to compare the behavior of the PLC code relative to the accepted motion by playing the PLC code with a PLC emulator.
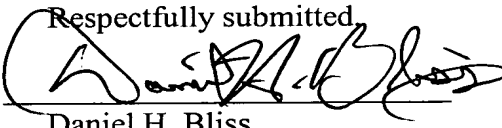
In Walacavage '441, there is a special purpose viewer or motion player such as VisLine in block 40, but there is no additional PLC emulator to play the PLC code such that the

user can observe the motion of the mechanical model using the actual PLC code as if they were watching a machine or manufacturing line of a vehicle assembly plant floor. In Walacavage '441, there is a virtual PLC generator 15 that generates PLC code and a line verification system 14 that verifies the PLC code. In Walacavage '441, it is clear in Column 2, lines 37 and 39, that the line verification system 14 verifies the PLC code for the line model and not the PLC generator 15. In the present application, on page 8, lines 18 and 19, although the emulator 20 sends and receives signals with the PLC logical verification system 18, it is the verification system 18 that verifies the PLC code and not the emulator 20. As a result, the PLC generator 15 is not the same thing as the emulator 20 of the present application. As stated on page 14, lines 11 through 14 of the present application, the user 12 exports the PLC code to the PLC emulator 20 to play and visualize the PLC code, which is entirely different from the PLC code generator 15 of Walacavage '441. Therefore, Walacavage '441 does not perform the steps of replicating a motion of a mechanical model by generating a PLC code for the motion of the mechanical model if the motion of the mechanical model was acceptable and using the accepted motion of the mechanical model to compare the behavior of the PLC code relative to the accepted motion by playing the PLC code with a PLC emulator as claimed by Applicants. As such, the claim language cannot be merely interpreted to read on the PLC generator 15 of Walacavage '441.

Walacavage '441 fails to disclose the combination of a method of emulating machine tool behavior for a programmable logic controller logical verification system for manufacturing a motor vehicle including the steps of constructing a mechanical model, viewing motion of the mechanical model in a motion viewer, determining whether the motion of the mechanical model is acceptable, replicating the motion of the mechanical model by generating a PLC code for the motion of the mechanical model if the motion of the mechanical model was acceptable, and using the accepted motion of the mechanical model to compare the behavior of

the PLC code relative to the accepted motion by playing the PLC code with a PLC emulator as claimed by Applicants. Walacavage '441 fails to disclose each and every element of the claimed combination of a method of emulating machine tool behavior for a programmable logic controller logical verification system for manufacturing a motor vehicle as arranged in the claims and claimed by Applicants. Therefore, it is respectfully submitted that claims 1 through 19 are allowable over the rejection under 35 U.S.C. § 102(e).

Based on the above, it is respectfully submitted that the claims are in a condition for allowance or in better form for appeal. Applicants respectfully request reconsideration of the claims and withdrawal of the final rejection. It is respectfully requested that this Amendment be entered under 37 C.F.R. 1.116.

Respectfully submitted,

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